

July 2015

Ellis County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 16 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Ellis County economy.¹ These 16 sectors have a total direct output of approximately \$96 million and support 845.9 jobs in Ellis County. Running the model for all 16 sectors simultaneously produces the following results:

Agriculture Contribution in Ellis County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	845.9	3%	\$27,174,934	2%	\$95,651,192	6%
Indirect Effect	271.6	1%	\$17,752,877	1%	\$29,348,197	2%
Induced Effect	132.2	1%	\$8,276,760	1%	\$15,542,144	1%
Total Effect	1,249.7	5%	\$53,204,571	4%	\$140,541,534	9%

As shown in the above table, agriculture, food, and food processing supports 1,249.7 jobs, or 5% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$141 million, roughly 9% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 16 agriculture, food, and food processing sectors is approximately \$53 million, or 4% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 4% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 262.2 employees. This table also shows the amount of jobs that are created by the agriculture industry in Ellis County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	262.2	\$29,601,398
Grain farming	208.3	\$31,773,348
All other crop farming.....	150.8	\$8,336,330
Support activities for agriculture and forestry	142.1	\$8,455,158
Landscape and horticultural services	77.2	\$4,225,906
Veterinary services	43.8	\$2,786,353
Dairy cattle and milk production.....	37.3	\$3,030,254
Wholesale trade.....	26.1	\$5,327,546
Bread and bakery product, except frozen, manufacturing	25.8	\$2,741,042
Real estate.....	24.0	\$3,649,693

The Grain farming industry directly contributes approximately \$32 million to Ellis County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Grain farming	208.3	\$31,773,348
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	262.2	\$29,601,398
Support activities for agriculture and forestry	142.1	\$8,455,158
All other crop farming.....	150.8	\$8,336,330
Animal, except poultry, slaughtering.....	9.1	\$5,429,159
Wholesale trade.....	26.1	\$5,327,546
Landscape and horticultural services	77.2	\$4,225,906
Real estate.....	24.0	\$3,649,693
Breweries	3.4	\$3,115,995
Dairy cattle and milk production.....	37.3	\$3,030,254

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Ellis County's economy.

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All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.